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EXAMINER	
BARNES, CRYSTAL J	

ART UNIT	PAPER NUMBER
2121	

NOTIFICATION DATE	DELIVERY MODE
12/14/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

10/574,701

Applicant(s)

FARNIK, ANDRZEJ

Examiner

Crystal J. Barnes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18 and 21-29 is/are rejected.
- 7) ☒ Claim(s) 19, 20 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is a Final Office Action in response to the Amendment received on 9 October 2007. Claims 1-15 have been cancelled per Preliminary Amendment. Claims 16-30 have been amended. Claims 16-30 remain pending in this application.

#### *Response to Arguments*

2. Applicant's arguments filed 9 October 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that Bonnefont clearly does not predict an undulation of the product, the examiner interprets elongation as undulation. The Bonnefont et al. reference discloses the process of the invention relates to an installation comprising a stretcher-and-roller leveling planisher comprising at least one bending unit made up of a pair of rolls offset in height and a multi-roller leveling assembly comprising two chassis, respectively lower and upper, each supporting a row of parallel rollers, offset longitudinally and in height, in such a way as to set up, by imbrication in the rollers, an undulating feed path of the strip with reverse bendings, means for adjusting the imbrication of the rolls of each

bending unit, means for adjusting the imbrication of the rollers of the leveling assembly and two tension blocks placed in position, respectively, on the upside and downside of the installation on the feed path of the strip to apply tensile stress which is able to determine an elongation of the strip, the value of said elongation being imposed by adjusting the through-speeds in said blocks (see column 2 lines 32-47). The two sets of rollers 51, 51' are longitudinally offset and can therefore nest inside one another by adjusting the relative heights of chasses 6, 6' so as to define a zig-zag path (see column 5 lines 38-40). On another input 80cof mathematical model 80, the elongation A is entered that must be imposed on the strip in order to correct the flatness fault detected on the upside of the installation, for example by a flatness measurement roller of a know type (see column 7 lines 8-12). From all these parameters and programmed equations, mathematical model 80 generates, on the one hand, an elongation reference value and, on the other hand, imbrication reference values for the different devices (see column 7 lines 16-19). The elongation reference value is entered at input 76a of a device 76 for adjusting drive mechanism 21 of tension blocks 2, 2', such a mechanism making it possible, in a known way, to maintain the difference in speed

between the upside and downside blocks corresponding to the prescribed elongation (see column 7 lines 20-25).

***Specification***

3. The amendment to the specification was received on 9 October 2007. This correction is acceptable.

***Claim Rejections - 35 USC § 112***

4. The amendments to the claims were received on 9 October 2007. These corrections are acceptable.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16-18 and 21-29 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,666,836 to Bonnefont et al.

As per claim 16, the Bonnefont et al. reference discloses a method of increasing precision in controlling a path of a product through a roller leveler including two leveling assemblies (see column 5 lines 28-32, "multi-roller assembly 5") including parallel rolls ("two sets of rollers"), the assemblies ("multi-roller assembly 5") being placed above ("upper set 50") and below ("lower set 50") the product ("strip 1") respectively, members (see column 5 lines 37-39, "chasses 6, 6'") configured to set imbrications of the rolls ("two sets of rollers 51, 51'"), the method comprising: presetting the imbrications (see column 7 lines 16-19, "imbrication reference values") by using a presetting model ("mathematical model 80") including a reference value for presetting the imbrications ("imbrication reference values"); measuring (see column 6 lines 33-40, "measuring device M1 to M5"), during a leveling operation ("process control system 8"), an absolute separation value ("respective positions") of the leveling rolls ("rollers"), and comparing the value ("respective positions") with the reference value ("position order"); and setting the position of the leveling rolls (see column 8 lines 3-6, "adjust imbrications") to keep the measured value (see column 8 lines 7-10, "actual

position") equal to the reference value (see column 8 lines 10-14, "imbrication reference values") so as to keep the path of the product ("feed path of the strip 1") to be leveled in the leveler ("multi-roller assembly 5") in accordance with an undulation (see column 7 lines 16-19, "elongation reference value") of the leveled product ("strip 1") predicted by the presetting model ("mathematical model 80").

As per claim 17, the Bonnefont et al. reference discloses taking first and second measurements ("measuring device M1 to M5") of the absolute separation value ("respective positions") of the leveling rolls ("rollers"), the first measurement taken at an entry side ("imbrication A2 at the input") of the leveler ("multi-roller assembly") and the second measurement at an exit side ("imbrication A2 at the output") of the leveler ("multi-roller assembly"), respectively, comparing each of the measurements ("actual position") with the reference value ("imbrication reference values") given by the model ("mathematical model 80"); and setting the position of the leveling rolls (see column 9 lines 36-40, "multi-roller assembly"), at the entry and exit of the leveler ("imbrication A2 at the output, imbrication A2 at the input"), respectively, to keep the measured value ("actual position") equal to the reference value ("imbrication reference values") to achieve a decrease in degree of a plastic deformation (see column 10 lines 41-42, "deformations targeted") of the

leveled product ("strip 1") predicted by the presetting model ("mathematical model 80").

As per claim 18, the Bonnefont et al. reference discloses measuring ("measuring device M1 to M5") the absolute separation value ("respective positions") of each of the leveling rolls ("rollers"); comparing each of the measurements ("actual position") with the reference value ("imbrication reference values") given by the presetting model ("mathematical model 80"); and setting the position ("adjust imbrications") of each of the leveling rolls ("rollers") to keep the measured value ("actual position") equal to the reference value ("imbrication reference values") so as to achieve an undulation ("elongation reference value") of the leveled product ("strip 1") and decrease in degree of plastic deformation (see column 10 lines 41-42, "deformations targeted") of the leveled product ("strip 1") that are predicted by the presetting model ("mathematical model 80").

As per claim 21, the Bonnefont et al. reference discloses a fixed support stand (see column 4 lines 48-50, "frame 10"); two leveler assemblies (see column 5 lines 28-32, "multi-roller assembly 5") of parallel rolls ("two sets of rollers") placed above ("upper set 50") and below ("lower set 50") the product ("strip 1") respectively; devices (see column 5 lines 1-6, "mechanical screw jacks 36")



configured to set the imbrication ("adjust the imbrication") of the rolls ("live rolls 33, 33'"); a device configured to measure (see column 6 lines 35-37, "measuring device M1 to M5") leveling forces (see column 5 lines 15-18, "pressure") at least on each side of the leveler (see column 6 lines 6-10, "multi-roller assembly 5"); and at least one device (see column 5 lines 45-54, "chassis 6, 6'") configured to separate ("vertical sliding movement") the leveling rolls (see column 5 lines 28-32, "upper set 50, lower set 50'") at at least one point (see column 6 lines 25-31, "imbrications P1, P2; center-to-center spacings A1, A2") and to measure the separation of the rolls ("measuring device M1 to M5").

As per claim 22, the Bonnefont et al. reference discloses at least one electronic device (see column 6 lines 33-40, "process control system 8") configured to control the devices ("mechanical screw jacks 36") for setting the imbrication ("adjust the imbrication") so that the measured separation ("vertical sliding movement") of the leveling rolls ("live rolls 33, 33'") will be controlled to a theoretical value (see column 7 lines 16-19, "imbrication reference values") given by a model ("mathematical model 80").

As per claims 23, 26 and 29, the Bonnefont et al. reference discloses the devices ("process control system 8") for setting the imbrication (see column 6 lines 12-14, "imbrications") are hydraulically controlled ("hydraulic jacks").

As per claim 24, the Bonnefont et al. reference discloses further comprising a device configured to separate (see column 6 lines 30-32, "screw jacks 64, 66") the leveling rolls ("multi-roller assembly 5") at at least first and second points (see column 6 lines 25-31, "imbrications P1, P2; center-to-center spacings A1, A2"), and configured to measure the separation ("vertical sliding movement") of the rolls ("live rolls 33, 33'"), the first point located in an entry zone ("center-to-center spacings A1 at the input") and the second point located in an exit zone ("center-to-center spacings A2 at the output") of the leveler ("multi-roller assembly 5").

As per claim 25, the Bonnefont et al. reference discloses at least one electronic device (see column 6 lines 33-40, "process control system 8") configured to control a measured separation ("mechanical screw jacks 36") of the leveling rolls ("live rolls 33, 33'") located in the entry zone and in the exit zone ("imbrication A2 at the output, imbrication A2 at the input") of the leveler ("multi-roller assembly 5") respectively to the theoretical value (see column 7 lines 16-19, "imbrication reference values") given by a model ("mathematical model 80") for the separation

("vertical sliding movement") of the rolls ("live rolls 33, 33'") located in the entry zone and the exit zone ("imbrication A2 at the output, imbrication A2 at the input") of the leveler ("multi-roller assembly 5") respectively, by acting independently on the devices (see column 6 lines 25-32, "jacks 36, 36, screw jacks 64 and 66") configured to set the imbrication ("imbrications P1, P2") of the rolls ("live rolls 33, 33'") in each of the entry and exit zones ("imbrication A2 at the output, imbrication A2 at the input") respectively.

As per claim 27, the Bonnefont et al. reference discloses further comprising a device configured to separate (see column 6 lines 30-32, "screw jacks 64, 66") of each pair of leveling work rolls ("multi-roller assembly 5") and measure the separation directly and separately (see column 6 lines 25-31, "imbrications P1, P2; center-to-center spacings A1, A2").

As per claim 28, the Bonnefont et al. reference discloses at least one device (see column 6 lines 25-32, "jacks 36, 36, screw jacks 64 and 66") configured to individually set a position of each leveling roll ("multi-roller assembly 5"); and at least one electronic device ("measuring device M1 to M5") configured to control a measured separation ("vertical sliding movement") of each of the leveling rolls ("multi-roller assembly 5") to the theoretical value (see column 7 lines 16-19,

"imbrication reference values") given by a model ("mathematical model 80") for the separation ("vertical sliding movement") of each of the rolls ("multi-roller assembly 5") by acting independently on the respective device ("jacks 36, 36, screw jacks 64 and 66") configured to set the imbrication ("adjust the imbrication").

*Allowable Subject Matter*

7. Claims 19, 20 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the

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advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Vincent can be reached on 571.272.3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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CRYSTAL J. BARNES  
PRIMARY PATENT EXAMINER  
CJB

6 December 2007